

Brazil 79

Bahia

TU2/539#

DART

P357359

\$.33 H

# memo book

30 sheets

6 in. x 4 in.

no. 490

0



2

71723 40550

Stuart Hall co., inc. KANSAS CITY, MISSOURI 64108



S.W. of Belmonte a 1894  
rest on white sand dunes  
30 m. (Alimnia) -  
grants



Muni. Belnate - 31 km S.W. of Belnate and 84<sup>km</sup>  
east of Itapebi, low forest on white sand slopes  
above creek, ~~the~~ elevat. 30 m. (Alvimia)  
gracilis -

at base Itapebi - 9568 -

Ceploc. 9617.6 } 61.5

9629.5 } 22.5

sub Belnate 9679.1 652.84

Meristadys. 9705. 710

Alvimia Atract. 9710.4 { 81.8

BR 101. 9792.2 }

Belu BR 101 = 113 km -



2489  
Ansonville 419.  
427.8

419

(08.8km) from  
Br 101.

K - W 796  
2015 to Oliveira

Alvinia 815

~~Alvinia~~ 833.2

Leito A  
Road to Rio Martin  
big clay the river.

Bank up to 3.5m  
diam -  
± up to 20m high -



Mendocino -  
± up to 15 mm  
dia. up to 2.2-3

870,9

Min - 890,1

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Choice (870,9)

Solito - 841,3 -  
Grade

Deposito de Nue & Cirzo  
H. A. Adrieto -  
9208 km.

9210.3 *km*  
213.

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9231.7. volio de

9235.2 *Fajal*

9243.6 *A. angustica*

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note

9245.9. note due

263.3

17.4 + todens

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9290.8 <sup>minutes</sup>  
- photo x note  
any choice  
reverts to the

Wagner



2476 <sup>no</sup> mine in Bolivia - *Alvinia tenuis* new locality?

2477 *Alvinia radiata* " " K. 18-20

2478 *A. tenuis* seedling

2479 *A. gracilifolia* "

2476 <sup>like</sup> *Alvinia* in fls

2477 <sup>like</sup> *Merontodys* in fls

2478 <sup>2</sup> *Alvinia* new locality

2479 <sup>like</sup> *A. radiata* same local?

2480 *A. tenuis* seedling

2481 *A. tenuis* flowers

2482 *A. gracilifolia* "

2483 *A. gracilis* "

2484 *Arctanthus ovulatus* -

2485 *A. radiata*

2486 *A. asymmetrica*

2487 *Merontodys* in fls - <sup>2487</sup> *Merontodys* *Parianella* (Reena la CEMAC -

2488 *Anomochloa* in fls - *Reena la CEMAC -*

2489 *Merontodys* in fls -

2490 *Merontodys* in fls -

*Weyla* in

2491



Brasil 1979

Bahia 79



2476

Feb. 22/79

Bambusa sp.

(same as new one from Nua. 7/1976)  
Bo, Hun. Iken, estrada Oliveira - Vila Brasil, 30 Km  
SW of Oliveira. (Parado  
is pyramidal spirangos + Santa El  
na Maron, few can be seen.)

Growing near the edge of  
~~the~~ forest in natural  
dumps. Culms steep, up  
to 3.5m in diam and  
about 20m high, the  
leaves on trees. Nodes  
from the base to 2m  
with strong, looks  
some curved and  
long, ca. 6-7m.  
Mid culm nodes with



dry steep wooded slopes  
of pines - but in most  
and most without photo  
ed with long blade about  
a top of a bush.

All in flowers, very pretty  
fat pseudopitellate  
common in the up &  
here is called "ganchio"  
growing to the next to it  
Platanthera caroliniana  
also seen in several  
places mostly past and  
dry but in the valley  
not abundant but some  
Few pictures with roll  
#1 Kodak - not good  
light, rain  
In some areas also  
growing and collected

a Meristachys in flower  
FAA: Dry slope a small  
spikelet a leaf. (2:33)  
(garramula ~~2:33~~  
Steam -  
Doubtful? (re))



2477

Newbury,  
Be, M. Ilk - home lost  
on 2476

Most plants flowering,  
none along by and  
past.

Beautiful M. with  
sharp cartilaginous noty  
dotted on culms about  
2, 3-merous & up to  
 $\pm 15$  <sup>cm</sup> long. Hanging from  
trees - growing in the forest.  
(= for Mue) & Atract.  
Cardinalis - Not too  
far from mid March

This is a  $\pm$  situated  
part of sandy soil  
in or about region  
very humid, very rainy.

2 vials: 1 from a box  
paranoids - culms fine  
Few photographs? not  
Kohler's



FD-23

2478

Alvinia tenuis

Re. M. J. Hen - 19 was

Olivenza - Villavieja, 18.3 km, SW of Olivenza (new locality, beyond type loc.)

-FAA 4-<sup>inf</sup>  
11 - boys - but  
series from page 2  
1 3:1 ~ there

 $1:3:1$ 

1 - Berg. (6) -

no bulky material

foto : color roll # 2 Ektachrome  
roll # 3 B&W.

In partially cut down part  
of white band soil.

Very abundant but mostly  
dry and past, still some

patches, green and brown  
rare ones still producing  
new spots.

Very rare big, mature  
fruit. found only 3 or 4 -  
but very abundant and  
so little <sup>units</sup> ~~large~~ # - tops  
of ~~scalloped~~ <sup>ment</sup> ~~leaves~~ -

Saddles grazing well  
but most rising, rather  
few, probably became  
somewhat very disturbed and  
cut. 70 were about  
of large ones, probably  
coming on in the part  
with the type locality

In several inflores. seen  
2 fruits developing in the  
P<sub>1</sub>, one 2° fruit and  
all other 2 or 3 <sup>gynodio</sup>



about. This one is billy  
on tubate and to be  
near to like the billy  
points, we saw the bag  
to stop on the lower  
parts of slopes.

RAB<sub>4</sub>

2489

*Atractantha radiata*

~~to~~ ~~for~~ some local, 2489  
growing in part off cut  
part of white sand soil  
in small patch with  
a bunch large popula-  
tion of *A. tenuis* in  
the top of edge of  
street. still green some  
in fl. very old part  
but many still young  
and many with  
long petioles and  
erect in one or two  
places. beautiful heads  
as with long axillary  
fig. as in other.



Collected for later use  
only

To get some photographs

2480

2,500 km from last  
Altimeter - 10

10 to 12 - 969.0 -  
to Olvera 18.3.

Altimeter type low for  
mud, 971.500 - slide  
a large 15.9 - 16 km  
from Olvera

200 m from  
Altimeter underphyle 15.700.0  
971.700

Reps. Altitude 987.4

11.7  
15.7



2480 - *tenuis*  
*Alm. frax.* seedlings

2481 - " *flor.* -

2482 - *Amorpha* *phyl.*  
seedlings -  
~~2483~~

*Schiz. & Virgata* - *to Lado*

38977, 500 } → 17.3 km  
138994, 800 } *late at Lado*

39003, 9 } 10 km + 8 km  
39005 } *late Alm. frax.*

39019 - *late Alm. tenuis*

*pendula* 2 + 3 km *for* *over*

*to the other side of the*

*and* *cl. (bit) from*

*A. Lodiata*

9020, 3 - *A. tenuis* + *A. nodis*

*to* - *very intense & rich*

*fold* - *full of seedling*  
*Alm. frax.* - *few of Alm.*  
*both by* - *but still*  
*few little green of Alm.*  
*min.*

9022 - *Al. tenuis*, the  
*very best* *font* *with*  
*tone* *of new growth*  
*in place* *as a*  
*canopy*, *beautiful tall*  
*tree* -

- (48.5 km from Orange)

9026 - *km.* *Lado* *from*

*Sapumaco* *A. curvum* -

*A. ovulante* -

~~not~~

*entirely to the side of*

*curvum* - *There* - *Orange*

9032 - 8 km



9043, 7 - late with pencil  
to P. gaudin.  
side to P. gaudin & Oliveira  
— long

side to P. gaudin - Oliveira  
9132, 4

side to Oliveira - Mura  
9149, 7

233

24, 3

new - Alm. g. Tami  
new collection for  
locality -

- A. Tami new for  
type local  
A. macropylle for  
type local

Alm. g.

A. gaudin new  
locality 2483

Atractantia overlance  
2484



Samoa to canal  
2488 *Astr. radiata*  
type locality and from  
300? m. south

F.A.A. : 2 very w. material  
with very young infl. a  
other with young tip infl.  
1. wide tall infl. group  
infl. with proliferation  
and other young infl. on part  
of it.

1 black-white with tips of  
proliferations

1 long - young infl.

1 3:1 " "

total 6 vials - and  
not parentals -

Notes: for 1920 coll. Ekt. 200  
roll #2 + 1/2 + roll #4

Black W. for 1920. roll 3 & 5

2480

Febr 23

to M. Th. St. Oliruz -  
with the brain, 16 km <sup>15.800</sup> SW  
of Oliruz. (type locality)

Alnania tenuis  
seedlings

Young plant of about  
one year or more  
a few months more?  
Beautiful seedlings  
looking like *Thesia*  
*leptophylla*. They  
~~grow~~ in 4 stages of  
growth, some about  
50 cm or +, already  
with the first bracts  
for a middle node  
May still with



fruit attached, the 1<sup>st</sup>  
root very thick.  
They are very abundant  
in place forming a  
carpet - looking  
healthy and growing  
well.

Notes taken: Box W at 11<sup>th</sup>  
Bktaer - 200 old &  
herbarium made.  
some with flesh?

Feb. 23

2481

*H. asacanthodes* Kunze  
(Ponson)

Box M, Flh - strada Oliveira  
ca - Vila Brasil, 15<sup>th</sup> km  
SW of Oliveira - 15.900

In many places still  
plant green and with  
inflorescence - This inflorescence  
not so large as we  
saw many in the  
pick of flowering <sup>last year</sup>.  
Again, in this path  
several small, young  
fruits seen.  
Herbarium - a few photo  
vities?



Feb 23

2482

60, Man. Thru, to shade  
Olivença - Vila Brasil, 15, 7 km  
SW of Olivença

*Alvimia* <sup>*crassipolia*</sup>  
~~*crassipolia*~~  
(seedling)

type locality

Plant mostly dry  
and firm but some  
patches on one side  
of the road. <sup>thickening</sup> ✓ but one

flower with very young  
developing fruits  
seedlings are abundant

all over the forest and  
plants look very large  
Hard to believe at first  
glance that they are  
seedlings, they look like  
an Olive.

Some plant still with  
lots of fruit attached  
and some already with  
the first node in the  
branches.

Haban - sluts

Photo: b & w. and  
color (photo. 200) with  
flash - (flash with camera  
not working!)

200 m higher up on road  
before *Alvimia tenuis*

These seedlings are about  
1 year old or a few months  
shrub



Sat Feb 24

2483

Alouatta palliata  
(nestlings)

So, Mon. Feb. 24

Oliveage - Vile trail and  
then small Sapium  
- Curatella - from Odis-  
to the intersection point  
17, 3 km SW and then  
8 (and the next site 10 km)  
right and small -

All plants dry or almost,  
few spots with green  
leaves but lots of  
moss. They look beauti-  
ful, in ~~the~~ several  
places, but not too  
small, but probably  
finish long time

ago, same time as  
the type locality.

Beautiful bright green  
leaves, about same  
shape as the mother  
plant, many with  
first nodes with  
branches, very few  
already trying to climb  
good the branch.

Photo in S & W a lot,

We saw 2 localities  
with A. palliata, and  
in the one 2 km above  
was going with A. trach-  
ylophora nodulata -  
both localities very of  
new growth plant



Ba.

Ba - Mun. de Ilheus, Rd  
Oliveira - Vile Brasil, 17.3 km  
SW of Oliveira and then  
31.2 km to the right, on side  
road Sapucaieira - Cururupe  
solida Feb. 24 2484

*Atractantha oreolamata*

Growing at the edge of  
secondary, ~~forest~~ partially cut  
forest along the road.  
Climbing and sending  
out new shoots and  
covering densely the vegeta-  
tion.

New shoots arching and  
leaning on vegetation for a  
while, then climbing -

Plant with no flowers -  
Beautiful spot of *oreolamata* -



bulky - mch?

FAA:

herbaceous: hls -

Feb. 25

2485

(Gonimys & carnaral)

*Atractantha radiata* Willd.

Bahia, Mun. de Sina, estrada  
Sina - Olivença, 28 Km N of  
Sina, passing the Heroin.

Local ~~tree~~ or a flat-topped  
on white sand soil, near  
a sand dune. This is the  
same site I collected and  
discovered in 1976. The origi-  
nal population is now prac-  
tically dead, dry, still with  
dry inflorescences but not flower-  
ing. After careful exploring the  
area we found a few  
seedlings, presumably from  
seeds of *A. radiata*, growing



under the plants. They look  
pretty sunburnt but  
very small ~~to~~ to be 100%  
sure. I took photographs  
but do not collected.

About 300 m or so beyond  
this site, going south  
there is passing the <sup>top of the</sup> sand  
dune there is another spot  
of *A. radiata* very full  
and flowering. I think  
than in 1976 this plant  
was not blooming and  
probably started a little  
later than the rest of *A. radiata*.

Almost every inflorescence  
was ~~very~~ proliferated,  
producing repetitive axes  
like rays coming out

of the basal ball inflorescence.  
Each ray ends in one  
or two or more? spikelets.  
There are very heavy and  
they hang down from tips  
of branches. They look  
very pretty.

FAA: 2 very wide mouth nals  
with very young inflorescences and  
other with very young big inflorescences  
and in other nals young inflorescences  
with proliferations of part of  
this proliferations.

1 nial with tips of proliferated  
axis.

1 Boquet = young spiral  
13:1 " "

(Total 6 nials - not bulky collected)  
Photos: from 19- or 20 photos



Extr. 200 roll # 2 and half  
or more of roll # 4  
Blauit from 19 & 20 of roll # 3  
and ~~20~~ roll # 5.

Feb 26

2486

*Crissiuma asyntheticum*, new form  
or *Crissiuma* 111

Bahia, Mun. de Una - ~~Oliveira~~  
Road Una - Oliveira rd. 2 Km  
N. of Una city, fazenda of Mr  
Lloris de Matos Pires.

Alt. 75 m. j. m.

Very abundant, dominant plant in coastal forest of white sand soil. This sambo was collected very completely in 1976, ~~exactly~~ <sup>100%</sup> climbing <sup>100%</sup> <sup>100%</sup> with very hard, solid culms curved and crawling or ascendant and leaning on vegetation and then climbing to the top of trees and hanging for



top. About 15-20 cm high.  
Part of the ~~original~~ original  
plant has been cut down,  
all along the entrance  
and on both sides of  
the road till way ahead  
inside park.

In one place near the  
~~the~~ intersection with the  
stream one plant was  
in flower.

The inflorescences (pseudospikelets  
? or so) extremely long  
some 20 cm long or ~~more~~ more.  
The spikelets dry and looking  
like infested by disease.  
That we found a few other  
plants flowering farther down  
but all ~~the~~ dry.

They look like the type  
of pseudospikelets of  
*Bambusa* but enormous.

The best looking of the pseudo-  
spikelets were fixed in FAA  
They. The long pseudospikelets  
break very in pieces.



Bol. Mun. de Una. Road  
Una - Olivença, CEPLAC  
Reserva "Lemos Maia".  
*Coniandrella*.

Growing in coastal forest  
of white sand soil.

Common in forest mixed  
with bamboo, *Merostachys*  
in bloom and also  
*Crissiuma* (no flowers here).

Feb. 28, 1979. Col. # 2487



Feb. 27.

2488

*Merostachys* (en fl.)

Ba. Mun. de Una. Road  
Una - Oliveira, CEARA's  
reserva forestal "Lemos Maia".  
(ca. 7 km from Una?)

This "reserve" is very in part  
of the area I collected in 1972.  
I think is about 5 km or so  
from Una. Here I collected  
in 1972 this *Merostachys*,  
Asymmetrical, for the first  
time and one or 2 *Merostachys*  
clumps - one of which is now  
blooming and *Stachys cordulata*  
Medin. like *Merostachys*,  
with rather thin, asperous  
culms and short leaves.  
Collected a lot of



branches with flowers  
and also sterile parts:  
~~the~~ buds and nodes  
with branches -

Feb. 28

2489

*Anomochloa*

Same loc. as 1976 -

<sup>±</sup> 8.8 km from BR 101 - on  
Road São José de Macuco -  
Alma - São José de Macuco

Few plants found flowering,  
There were as before very  
high up the hill side on  
dark, humid forest.

Were photographed and  
later dried in FAA, few  
specimens collected for  
herbarium -



March 3, 1979

2490

*Meriania* sp. (in bloom)

Mun. de Belmonte, <sup>26</sup>~~27~~ Km

SW of Belmonte and 87 Km  
E of Itapebi.

Now, forest on white sand  
plains above creek.

Elevat. 30 m.

Low <sup>tree</sup> forest on white sand  
soil.

Most of the population  
already dying, dry and  
only the tips of branches  
still green with inflores-  
ces, the new shoot can.



*Alvimia ~~sp.~~ sp.* & *Arctanthus*  
*radiata* seen in:

Belmonte, Hun., 31 Km SW  
of Belmonte and 84 Km  
E of Tapachi.

Alt. 2.0m. 30 m

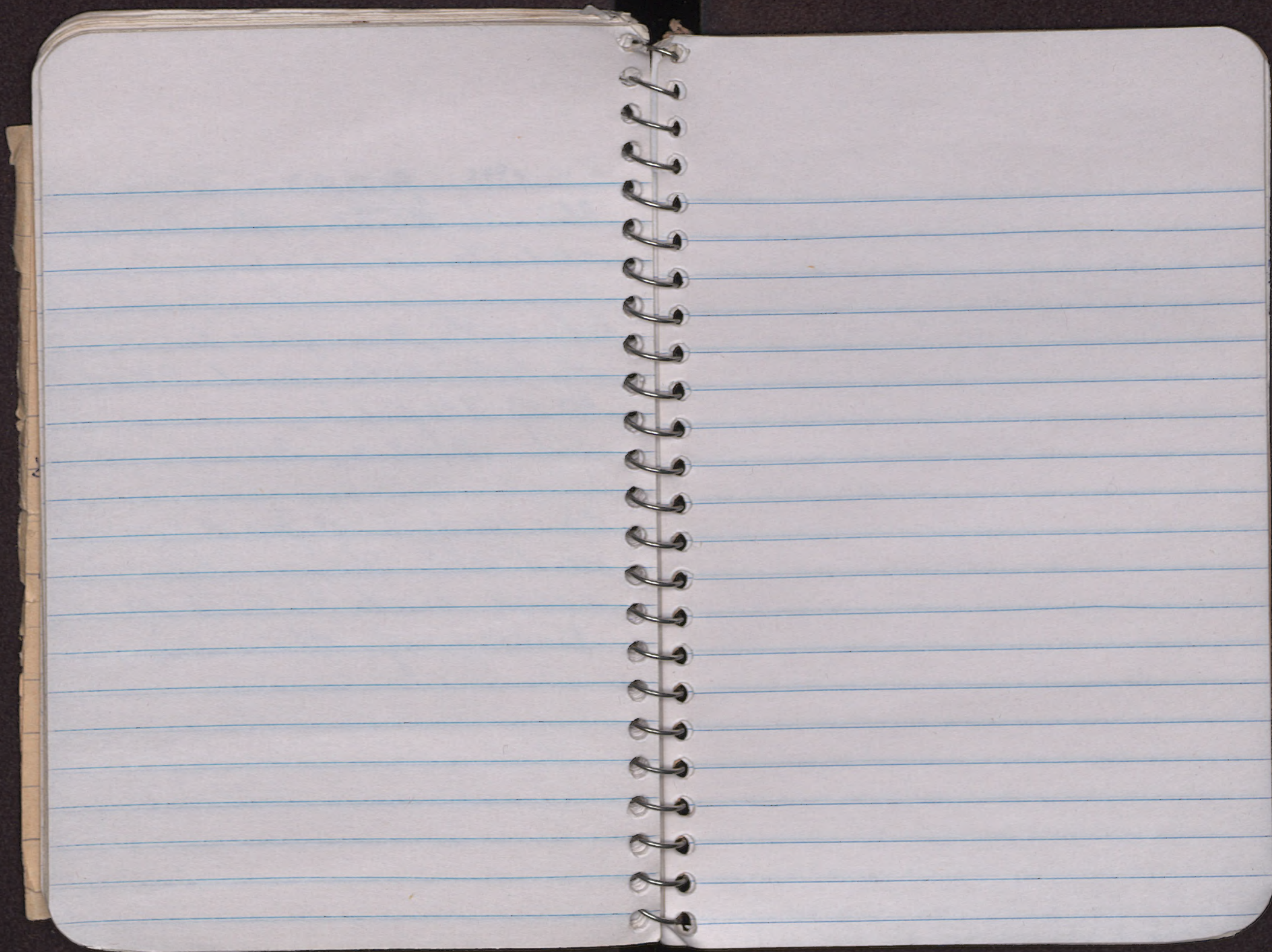
Low tree type of forest on white  
sand soil, along slopes  
above creek. Full of  
seedlings of *Alvimia*.



K, MO, NY, WIS

2994







agm

~~Alfama~~

GA FANHOTO = lampostes  
rotunda -

Hotel Fontane en  
Oliveira - de  
Dona (Joelito)



side the - lanciers - pers.

9302.9 -



